

REMARKS

The Application has been carefully reviewed in light of the Office Action mailed July 2, 2004 by the Office. At the time of this Office Action, Claims 1-23 were pending in the Application, of which Claims 1-23 were rejected. In order to overcome the rejections and objections asserted by the Office and to advance prosecution of this case, Claims 1, 2, 8, 10, 14, 17 and 23 have been amended and Claims 11 and 21 have been canceled. It is believed that the amended claims do not involve any introduction of new matter, whereby entry is believed to be in order and is respectfully requested. The Applicants respectfully request reconsideration and favorable action in this case.

The following actions were taken or matters raised: (I) Claims 1-16 were rejected under 35 U.S.C. § 102(e) as being anticipated by Edgar (USP 6,442,301) and (II) Claims 17-23 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Edgar (USP 6,442,301) in view of Sugiyama et al. (US2003/0132384 A1).

I. Claims Rejected Under 35 U.S.C. 102(e)

The Office has rejected Claims 1-16 under 35 U.S.C. § 102(b) as being anticipated by Edgar (USP 6,442,301). Amended independent Claims 1, 8, and 10 and hence all claims dependent thereon, include novel physical features that provide new and advantageous results in view of Edgar, making such claims novel and non-obvious and, thus, patentable over Edgar. Accordingly, the Applicants submit that the rejection under 35 U.S.C. § 102(e) applied to Claims 1-16 is overcome and respectfully requests the

Office to withdraw the rejection of Claims 1-16 under 35 U.S.C. § 102(e) as being anticipated by Edgar.

As amended, Claim 1 recites a method for capturing image and defect information from an image scanned from a medium, comprising the steps of capturing image and defect information by a sensor unit during every scan position while transmitting visible light from a first light source through the medium and capturing defect information by the sensor unit during every third scan position while transmitting infrared light from a second light source through the medium.

As amended, Claim 8 recites a method for capturing image and defect information from an image scanned from a medium, comprising the step of (1) alternatively transmitting visible light and infrared light through the medium for each scan line up to n lines in conjunction with capturing image and defect information during visible light transmission and capturing defect information during infrared light transmission; (2) transmitting only visible light through the medium at each scan line for the next 2n scan lines in conjunction with capturing image information during visible light transmission after performing step (1); and (3) repeating steps (1) and (2) until all image and defect information is captured for the medium.

As amended, Claim 10 recites a method for capturing image and defect information from an image scanned from a medium, comprising the steps of transmitting

visible light from a first light source through the medium to capture image and defect information by a sensor unit during every scan position with the sensor unit and/or the medium in a first alignment; and transmitting infrared light from a second light source through the medium to capture defect information by the sensor unit during every scan position after moving the sensor and/or the medium to a second alignment different than the first alignment.

Accordingly, the methods recited in amended Claims 1, 8 and 10, and thus all claims dependent thereon, exhibit physical and functional distinctions that are advantageous and non-obvious in view of Edgar. One example of such physical and functional distinctions that are advantageous and non-obvious is capturing image and defect information by a sensor unit during every scan position and capturing defect information by the sensor unit during every third scan position. In doing so, infrared information capturing time is at least about three times faster than using conventional methods. Another example of such physical and functional distinctions that are advantageous and non-obvious is capturing image and defect information by a sensor unit during every scan position with a sensor unit and/or the medium in a first alignment and capturing defect information by the sensor unit during every scan position after moving the sensor and/or the medium to a second alignment different than the first alignment. In doing so, a single sensor unit can advantageously capture image and defect information as generated by from a plurality of light sources.

Edgar does not disclose or teach steps and/or an apparatus configured for or capable of providing such physical and functional distinctions. Specifically, Edgar does not disclose or present any motivation for capturing defect information generated by transmission of infrared light at a first increment of scan positions and capturing image and defect information generated by transmission of visible light at a second increment of scan positions different than the first increment. Furthermore, Edgar does not disclose or present any motivation for capturing image and defect information by a sensor unit with a sensor unit and/or the medium in a first alignment and capturing defect information by the sensor unit after moving the sensor and/or the medium to a second alignment different than the first alignment. Accordingly, the methods of Claims 1, 8 and 10 and, thus, all claims dependent thereon, exhibit physical and functional distinctions that are advantageous, novel and non-obvious in view of Edgar.

II. Claims Rejected Under 35 U.S.C. 103

Under 35 U.S.C. § 103(a), the Office has rejected Claims 17-23 as being unpatentable over Edgar (USP 6,442,301) in view of Sugiyama et al. (US2003/0132384 A1). Amended independent Claims 17 and 23 and hence all claims dependent thereon, include novel physical features that provide new and advantageous results in view of Edgar and/or Sugiyama, making such claims novel and non-obvious and, thus, patentable over Edgar and/or Sugiyama. Accordingly, the Applicants submit that the rejection under 35 U.S.C. § 103(a) applied to Claims 17-23 is overcome and respectfully requests the

Office to withdraw the rejection of Claims 17-23 under 35 U.S.C. § 103(a) as being unpatentable over Edgar in view of Sugiyama et al.

As amended, Claim 17 recites a scanner comprising a transport mechanism that is configured for aligning a sensor unit and/or a medium in a first alignment for capturing image information and for moving the sensor unit and/or the medium to a second alignment different than the first alignment for capturing defect information. By moving the sensor unit and/or the medium from the first alignment to the second alignment, a single sensor unit can advantageously capture image and defect information as generated by from a plurality of light sources.

As amended, Claim 23 recites a method of digitizing a source image comprising collecting visible light data and infrared light data simultaneously on at least two color sensor channels at a first increment of scan positions and collecting visible light data during a second increment of scan positions greater than the first increment of scan positions on at least one of said color sensor channels. By collecting infrared light data in this manner, infrared information capturing time is proportionally faster than using conventional methods.

Neither Edgar nor Sugiyama disclose or teach steps and/or an apparatus configured for or capable of providing such physical and functional distinctions. Specifically, neither Edgar nor Sugiyama disclose or present any motivation for capturing

defect information generated by transmission of infrared light at a first increment of scan positions and capturing image and defect information generated by transmission of visible light at a second increment of scan positions different than the first increment. Furthermore, neither Edgar nor Sugiyama disclose or present any motivation for capturing image and defect information by a sensor unit with a sensor unit and/or the medium in a first alignment and capturing defect information by the sensor unit after moving the sensor and/or the medium to a second alignment different than the first alignment. Accordingly, the scanner of Claim 17 and the method of Claim 23 and, thus, all claims dependent thereon, exhibit physical and functional distinctions that are novel, advantageous and non-obvious in view of Edgar and/or Sugiyama.

CONCLUSION

The Applicants have made an earnest attempt to place this case in condition for allowance. For the foregoing reasons, and for reasons clearly apparent, the Applicants respectfully request full allowance of all pending claims. If there are any matters that can be discussed by telephone to further the prosecution of the Application, the Applicants invite the Examiner to contact the undersigned at 512-372-8240 at the Examiner's convenience.

Respectfully Submitted,
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